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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/531,589	11/14/2005	Toshio Nozaki	05168.0065.00000	1467

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EXAMINER	
METZMAIER, DANIEL S	

ART UNIT	PAPER NUMBER
1796	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/531,589	NOZAKI, TOSHIO	
	Examiner	Art Unit	
	Daniel S. Metzmaier	1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 February 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 1-10 are pending.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakayama et al, US 6,652,612. See comparative example 3 and column 4, line 32, to column 6, line 6; particularly column 5, lines 64 et seq; and claims.

3. Claims 1-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Nakayama et al, US 2003/0089045. See comparative example 3 and paragraph [0026]-[0040], particularly paragraph [0040]; and claims.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

> invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Rodel Nitta Corporation, EP 1 174 483 A1. Rodel Nitta Corporation (abstract, paragraph [0007] et seq, paragraph [0012] et seq, examples and claims) discloses cocoon-shaped silica polishing compositions.

Rodel Nitta Corporation makes the compositions different than the instantly claimed compositions without the hydrothermal treatment of said compositions. Since said materials are the same and the method of making the compositions are similar, the properties of the compositions recited in the claims would have been expected to have been the same or substantially the same. A compound or composition and all of its properties are generally inseparable. *In re Papsech*, 315 F2d. 381, 137 USPQ 43, (CCPA 1963).

To the extent the Rodel Nitta Corporation differs from the claims in the solubility of the materials at a pH between 11 and 11.5 or the average degree of condensation, some variation in the properties of the materials would have been obvious for the advantages of employing the materials in the same utilities as polishing materials. To the extent the methods would impart a difference to the materials, said difference has not been shown to be a patentable difference.

6. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rodel Nitta Corporation, EP 1 174 483 A1, as applied to claims 1-6 above, and further in view of So et al, US 6,432,151.

Rodel Nitta Corporation (abstract, paragraph [0007] et seq, paragraph [0012] et seq, examples and claims) discloses cocoon-shaped silica polishing compositions.

To the extent Rodel Nitta Corporation differs from the claims in the explicit recitation of solubility of the materials at a pH between 11 and 11.5 and the average degree of condensation, said difference has not been shown to be an unobvious difference. To the extent Rodel Nitta Corporation differs from the method claims in the further hydrothermal treatment of the polishing materials, said treatment has not been shown to be an unobvious treatment and/or other than conventional in making said silica abrasives for use as polishing media.

So et al (abstract, column 4 et seq, and examples) discloses silica slurries and methods of making said slurries for wafer polishing. So et al discloses (column 8, lines 60 et seq) the hydrothermal treatment of silica polishing agents 1 to 2 hours in an autoclave to make said silica physically solid and advantageously improve their physical strength and polishing efficacy.

These references are combinable because they teach silica polishing agents and methods of making said polishing agents from alkoxysilanes. It would have been obvious to one of ordinary skilled in the art at the time of applicants' invention to hydrothermally treat the silica polishing materials for the advantage of making them physically solid and improving their polishing efficacy. The particular temperature and pressures would have been within the level of one having ordinary skill in the art as a result effective variable.

Response to Arguments

7. Applicant's arguments filed 03 February 2009 have been fully considered but they are not persuasive.

8. Applicants (page 4) assert the Nakayama et al, US 6,652,612 or US PGPUB 2003/0089045, disclose spherical rather than cocoon shaped particles. This has not been deemed persuasive since applicant has not specifically defined what is the limit of a cocoon particle size and/or shape. Therefore, applicant's arguments regarding the alleged patentable distinction between the Nakayama et al, US 6,652,612 or US PGPUB 2003/0089045, particles and the instant claimed particles has not been deemed persuasive.

Furthermore and since the term cocoon has not been specifically defined in the claims and/or the original specification, it is deemed to take the plain meaning in the art. A cocoon is generally understood as an envelope or wrap to protect pupa or egg cases. While it may be elongated or elliptical, it may also be spherical or near spherical in shape. Applicant has not shown the materials are patently distinct based on the breadth of the shape based on the term "cocoon", which appears to be an undefined vernacular term rather than an art accepted term.

9. Applicant (pages 4 and 5) assert EP '483 does not anticipate nor render obvious the claims. Initially, applicant's reference to JP 3195569 or JP 11-60232 is unclear since the rejection is over EP 1174483. Applicant has not shown the alleged nexus between the materials of JP 3195569 or JP 11-60232 and EP 1174483.

Furthermore, Applicant has not shown the materials to be patentably distinct and/or patentably distinct for the scope of the claims.

10. Applicant (page 6) asserts EP 1174483 in view of So et al '151 teaches the agglomeration of seed particles, which are not the same shape as the claimed particles. This distinction is not seen by the examiner since applicant has failed to define the cocoon shape claimed.

11. In response to applicant's argument (page 6) that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Furthermore, So et al discloses (column 8, lines 60 et seq) the advantage of hydrothermal treatment of silica polishing agents for 1 to 2 hours in an autoclave to make said silica physically solid and advantageously improve their physical strength and polishing efficacy. The incorporation of the hydrothermal treatment method step of So et al '151 into the method of EP 1174483 would have been obvious to one having ordinary skill in the art at the time of applicants invention for said advantages.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Monroe, US 5,728,184, is cited of interest to the instant claims. Monroe discloses hydrothermal treatment of abrasive particle dispersions (at least column 9, lines 37-49) at temperatures of 150 to 200° C and elevated pressures.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel S. Metzmaier whose telephone number is (571) 272-1089. The examiner can normally be reached on 9:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David W. Wu can be reached on (571) 272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Daniel S. Metzmaier/
Primary Examiner, Art Unit 1796

DSM